SERVICE MANUAL

nipa63e1-a (1410)

Type no. ILS.210.306

Sensistor ILS500

Leak Detection System

Sensistor ILS500 F

Tracer Gas Filler

INFICON

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Safety During Service

Definitions of Warning, Caution and Notice

Warning

Indicates procedures that must be strictly observed to prevent hazards to persons.

Caution

Indicates procedures that must strictly be observed to prevent damage to or destruction of the instrument.

Notice Indicates special requirements the user must comply with.

Safety Instructions

Failure to observe the following precautions could result in serious personal injury:

Warning

Pay attention to the Warnings, Cautions and Notices in the User Manual for the product before operation.

Warning

The ILS500 must never be introduced to pressures higher than that approved for the object to be tested and never beyond the ILS500 specification.

Failure to observe the following precautions could result in damage to the equipment:

Caution

During service at the Service Center, all devices must be handled exclusively in an ESD Protected Area (EPA).

Devices must be transported from one EPA to another only in ESD shielding packages.

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Caution

On Customers site, during exchange or maintenance of electronic card, the service personnel must wear a ESD coat and use disposable wristband.

Caution

Risk assessment is the sole duty of the person handling the ILS500.

Notice Check that all relevant legislation and safety standards are complied with before putting ILS500 into service.

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1 General Information

The Sensistor ILS500 is an all-in-one tracer gas leak detection system with all necessary functions integrated in one very compact housing. The Sensistor ILS500 F is a tracer gas filler.

Please read this Service Manual carefully before performing service on the ILS500.

When reading, please pay particular attention to the **WARNINGS**, **CAUTIONS** and **NOTICES** found throughout the text.

1.1 About This Document

This document is only intended for INFICON service personnel working with the ILS500 Leak Detection System.

1.1.1 Document History

Revision	Date	Remark
a	10-2014	First edition

1.2 Versions

This manual applies to the product versions below.

Unit	Name	Software version
Leak Detector	ISH2000	6 or higher
Tracer Gas Filler	ILS500	3 or higher
Probe	P50	2 or higher

For more information about the latest software versions, please contact your local INFICON office.

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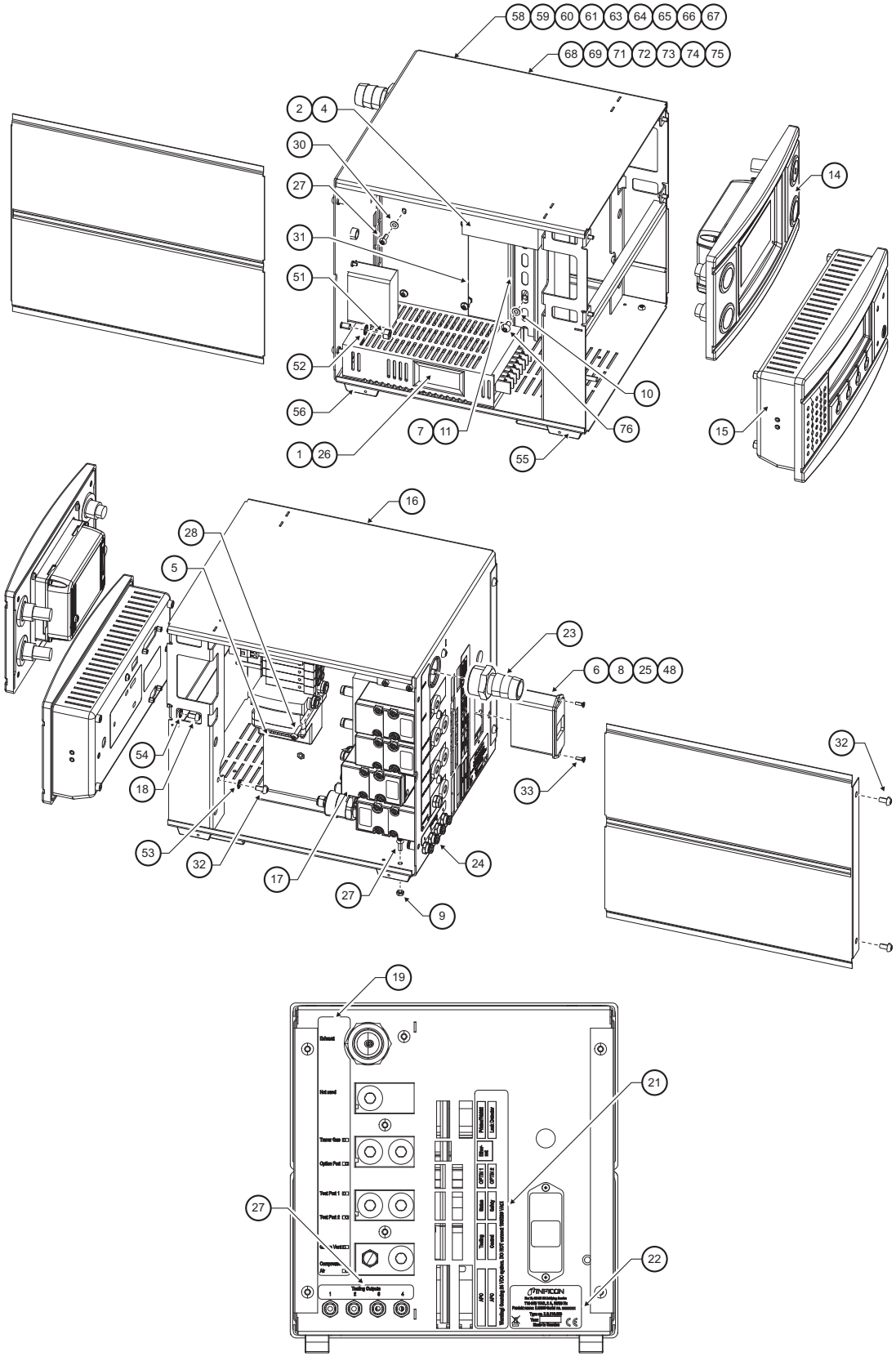
2 Components

2.1 Exploded View (ILS500)



Pos	Description	Part No.	Pos	Description	Part No.
1	Power supply ILS500	591-575	32	Torx screw M5x10 fzb	591-954
2	PLC FX3UC	591-718	33	Phillips screw M3x8 fzb	591-483
4	A/D CONVERTER BOARD	591-572	48	Cover plate	591-579
5	Valve ramp	591-565	51	Nut M6	591-586
6	Power inlet	591-576	52	Lock washer M6	591-587
7	DIN rail 35 mm, l=0,50m	591-580	53	Lock washer M5	591-609
8	Fuse holder	591-577	54	Lock washer M4	591-776
9	Hex nut M6M M4 A2	591-019	55	Front stand	591-573
10	Washer BRB 5,3x10x1 A2	591-108	56	Back stand	591-574
11	WEW 35/2	591-434	58	Contact for HMI-PLC	591-614
14	HMI-Panel*	599-027	59	CA51 operating panel cable	591-544
15	Sensistor ISH2000P*	599-073	60	CA52 ISH2000 RS232 cable	591-545
16	Weld box ILS500*	599-025	61	CA53 pilot valve cable	591-546
17	Valve block P510*	599-023	63	CA55 PLC I/O cable	591-548
18	Torx M4x8 fzb	591-260	64	CA56 PLC AIN cable	591-549
19	Pneumatical label 1 ILS500	598-073	65	CA57 PLC RS422 cable	591-550
20	Pneumatical label 2 ILS500	598-074	66	KB1022 printer cable	591-777
21	Electrical label ILS500	598-075	67	CA59 PLC power cable	591-552
22	ILS500 label	598-076	68	CA60 power cable 1	591-553
23	Nipple straight outer g1	591-561	69	CA61 power cable 2	591-554
24	Pneumatic coupling I straight 4 4	591-567	71	CA64 pressure gauge cable	591-571
25	Fuse 2A T	591-578	72	CA73 Rear probe cable	591-955
26	Torx screw M4x6	591-581	73	CA71 ISH2000 power cable	591-956
27	Torx screw M4x12	591-298	74	CA72 ISH2000 APC cable	591-957
28	Torx screw M4x20	591-583	75	PLC and software ILS500	591-845
30	Plastic washer M4 4.3x9x0.8 PA	591-584	76	Torx MC6S 5X25 FZB	591-289
31	ILS500 electronic board	591-603			

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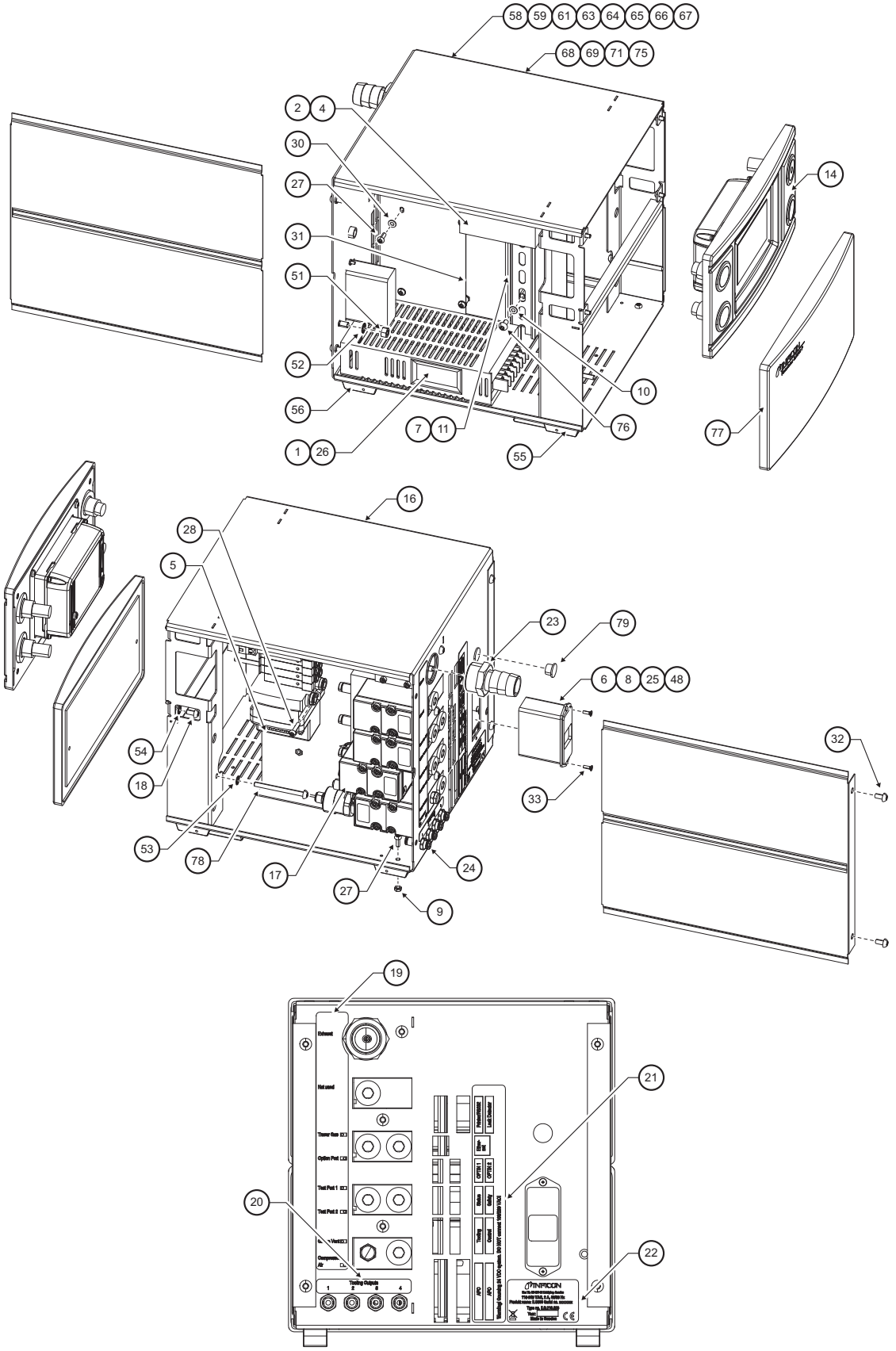
* This spare part comprises several parts, for details see “Component Details” on page -12.

2.2 Exploded View (ILS500 F)



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2	PLC FX3UC	591-718	33	Phillips screw M3x8 fzb	591-483
4	A/D CONVERTER BOARD	591-572	48	Cover plate	591-579
5	Valve ramp	591-565	51	Nut M6	591-586
6	Power inlet	591-576	52	Lock washer M6	591-587
7	DIN rail 35 mm, l=0,25m	591-580	53	Lock washer M5	591-609
8	Fuse holder	591-577	54	Lock washer M4	591-776
9	Hex nut M6M M4 A2	591-019	55	Front stand	591-573
10	Washer BRB 5,3x10x1 A2	591-108	56	Back stand	591-574
11	WEW 35/2	591-434	58	Contact for HMI-PLC	591-614
14	HMI-Panel*	599-027	59	CA51 Operating panel cable	591-544
16	Weld box ILS500*	599-025	61	CA53 Pilot valve cable	591-546
17	Valve block P510*	599-023	63	CA55 PLC I/O cable	591-548
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24	Pneumatic coupling I straight 4 4	591-567	71	CA64 Pressure gauge cable	591-571
25	Fuse 2A T	591-578	75	PLC och software ILS500	591-845
26	Torx screw M4x6	591-581	76	Torx screw MC6S 5X25 FZB	591-289
27	Torx screw M4x12	591-298	77	Panel cover ILS500 F	598-069
28	Torx screw M4x20	591-583	78	Torx screw M5x60	591-610
30	Plastic washer M4 4.3x9x0.8 PA	591-584	79	Plug 12 mm	591-976
31	ILS500 electronic board	591-603			

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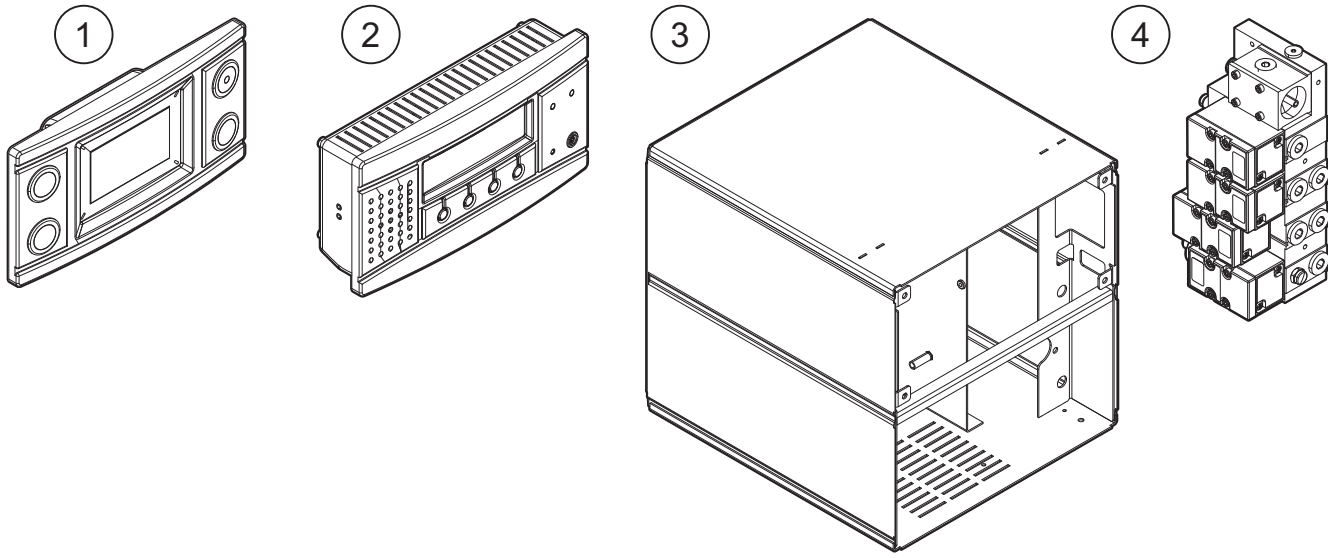
* This spare part comprises several parts, for details see “Component Details” on page -12.

2.2.1 Component Details



Pos	Description	Part No.
1	HMI-Panel	599-027
2	Sensistor ISH2000P	599-073
3	Weld box ILS500	599-025
4	Valve block P510	599-023

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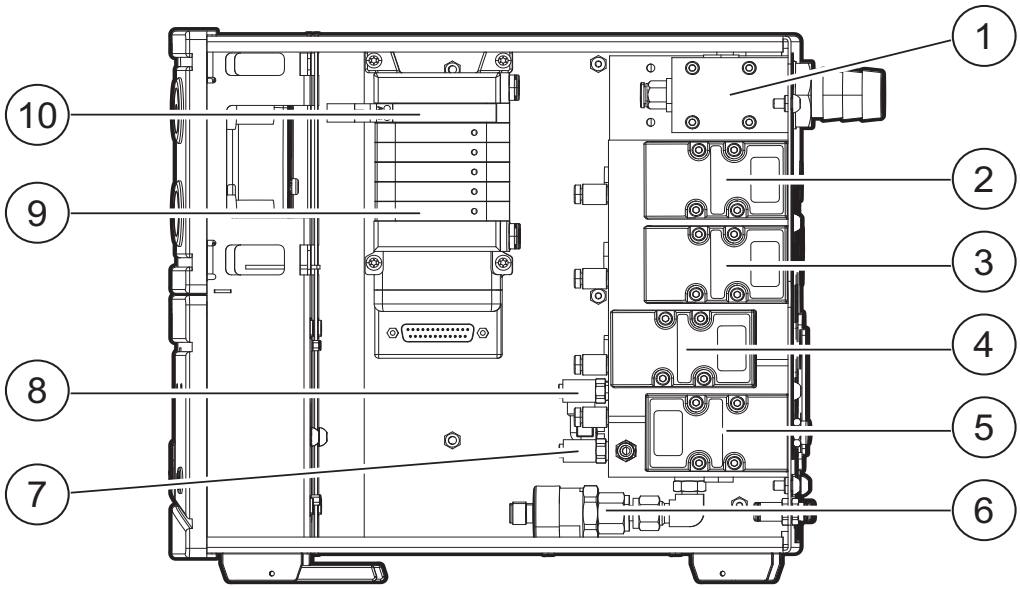
2.3 Interior View ILS500



1	Venturi Pump (Ejector)
2	Evacuation Valve
3	Tracer Gas Fill Valve
4	Test Port Valve 2
5	Vacuum Sensor Control Valve
6	Pressure Sensor (HP model only)
7	Vacuum Sensor
8	Pressure Sensor
9	Pilot Valve 6
10	Pilot Valve 1

Pilot Valve Ramp

Position	Valve
5A+6A	Main Air Valve
5B+6B	Venturi Pump Supply
4A	Evacuation Valve
4B	Tracer Gas Fill Valve
3A	Test Port 2 Valve
3B	Sensor Protection Valve
2A	Tooling Valve 1
2B	Tooling Valve 2
1A	Tooling Valve 3
1B	Tooling Valve 4

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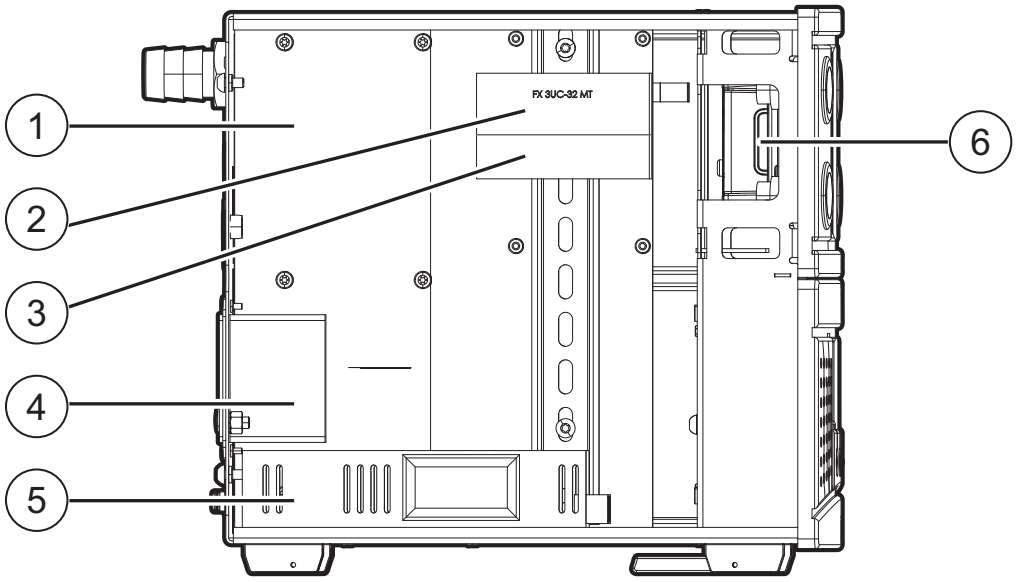

1	Main PCB
2	PLC
3	AD Module
4	Fuse holder
5	Power Supply
6	USB

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3 Troubleshooting

Tested Unit	Tested Feature	Reason for Error	Action
Vacuum and Pressure Sensors	Zero point	Broken/disconnected cable.	Check cable of sensors.
		Wrong set A/D parameters.	Check and adjust Analog Input settings. Replace sensor if “m” value needs more than 20% change.
		Broken vacuum or pressure sensor.	Replace sensor.
Venturi Pump	Maximum vacuum	No signal to Venturi pilot valve.	Check ”Venturi Pump” output. For more help, please contact INFICON.
		No signal to Evacuation pilot valve.	Check ”Evac Valve” output. For more help, please contact INFICON.
Test Port 2 Valve	Function	No signal to pilot valve.	Check ”Test Port 2” output. For more help, please contact INFICON.
Tracer Gas Fill Valve	Function	No signal to pilot valve.	Check “Fill Valve” output. For more help, please contact INFICON.
Evacuation Valve	Function	No signal to Evacuation pilot valve.	Check “Evac Valve” output. For more help, please contact INFICON.
Lamp	Function	No signal from PLC.	Check PLC output. For more help, please contact INFICON.
Tooling Valves	Function	No signal from PLC.	Check PLC output. For more help, please contact INFICON.

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4 Service Instructions

Caution

During service at the Service Center, all devices must be handled exclusively in an ESD Protected Area (EPA).

Devices must be transported from one EPA to another only in ESD shielding packages.

Caution

On Customers site, during exchange or maintenance of electronic card, the service personnel must wear a ESD coat and use disposable wristband.

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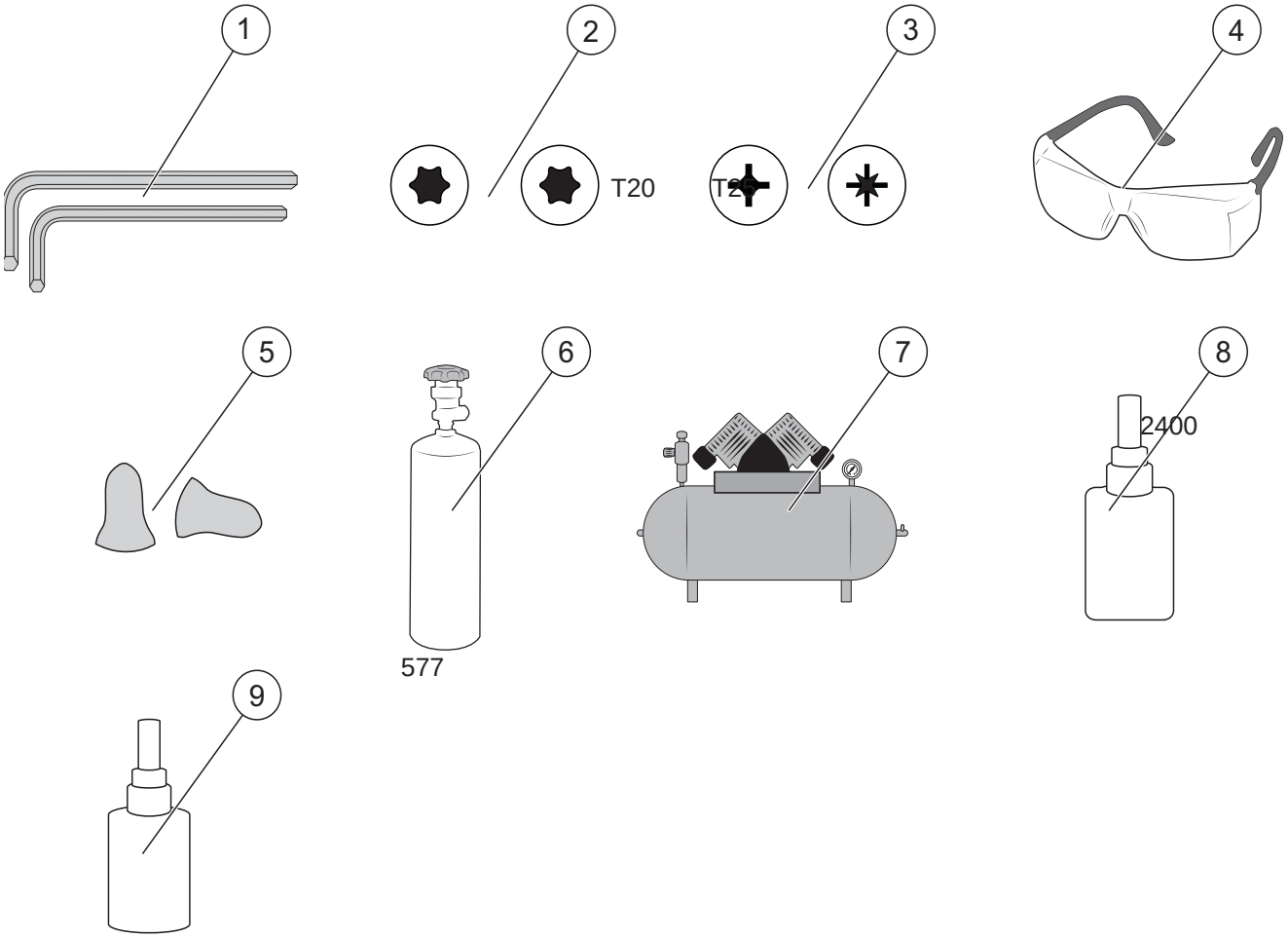
4.1 Safety Equipment, Tools and Consumables

When performing service of the ILS500 the following equipment may be needed.



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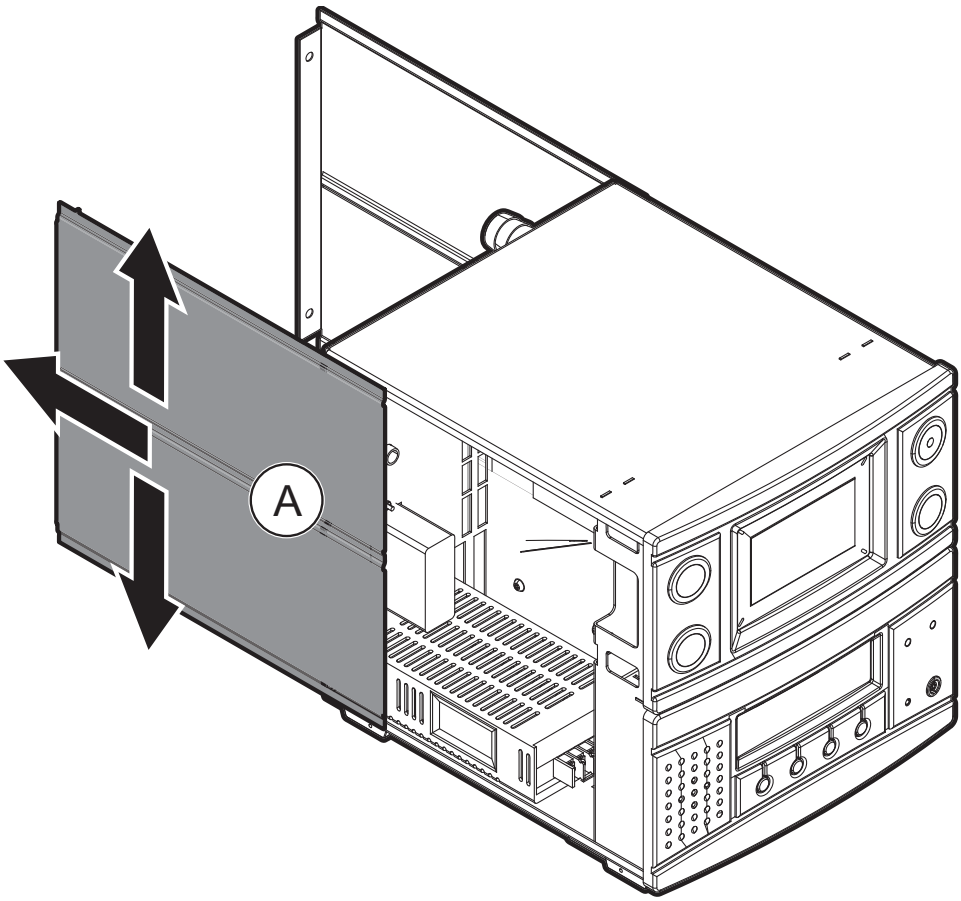
Pos	Description	Comment
1	Allen Keys (hexagonal 3 and 4 mm)	
2	Torx Key (T20 and T25)	
3	Screwdriver (Philips 1 or Pozidriv 1)	
4	Protective Eyewear	When performing tooling output test.
5	Protective Ear Plugs	When performing tooling output test.
6	Tracer Gas	
7	Compressed Air (10 bar)	
8	Loctite 2400	
9	Loctite 577	

4.2 Open the Cover



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Disassemble

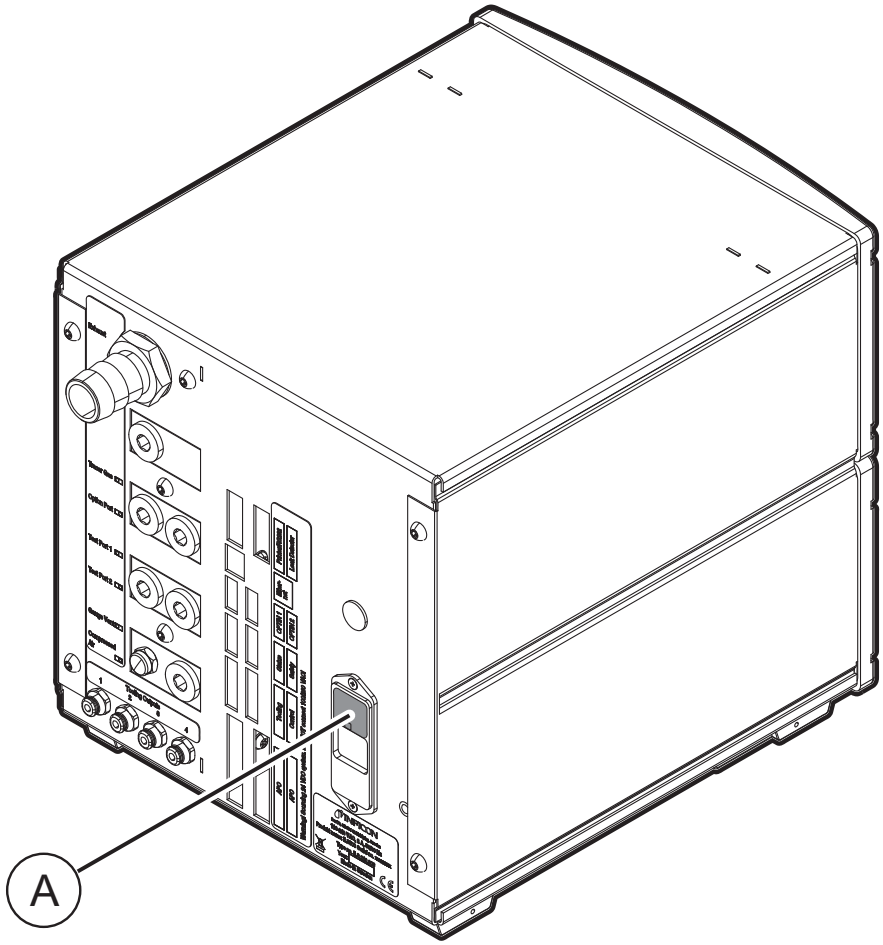
1. Unplug power supply.
2. Use a T25 key to remove the two screws holding the cover (A).
3. Slide the cover back and lift it off. Rock the rear end of the cover up and down a few times to loosen.

Assemble

1. Reinstall the cover (A).
2. Reinstall and tighten the screws.

4.3 Changing Fuses

Part	Part No.	Qty	Consumables
Fuse, 2A slow for Sensistor ISH2000	591-578	2	



Disassemble

1 Unplug power supply.

2 Remove the lid (A) containing the fuses.

3 Remove the fuses.

Assemble

1 Install new fuses.

2 Reinstall the lid (A) containing the fuses.

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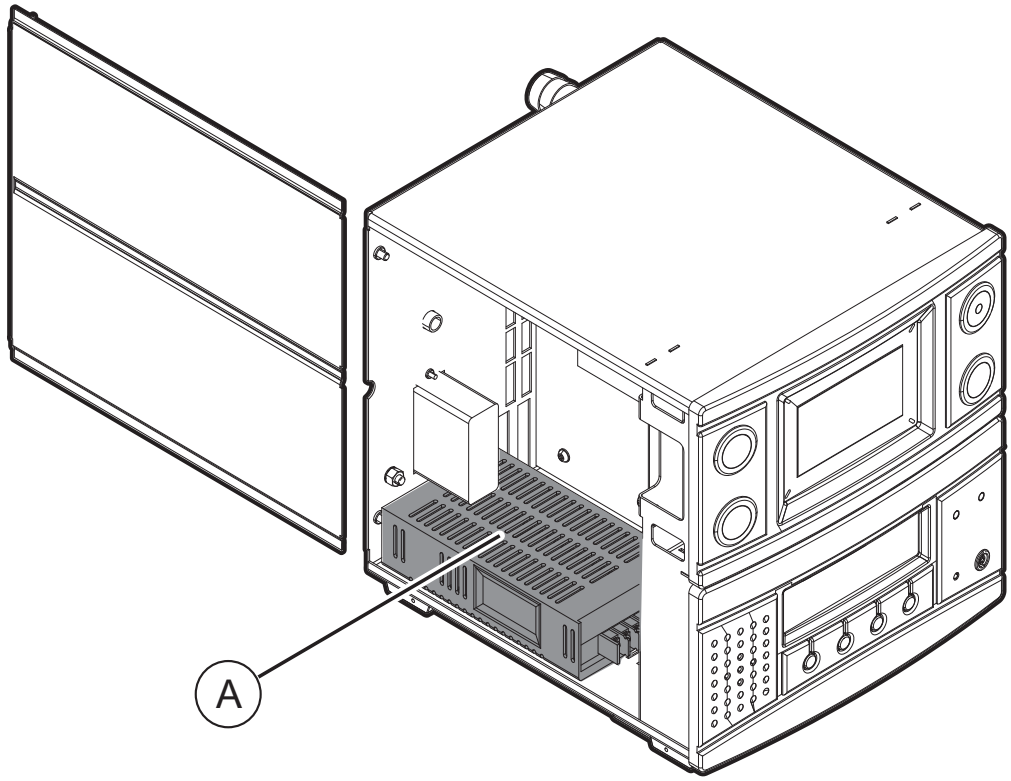
4.4 Changing Power Supply

Part	Part No.	Qty	Consumables
Power supply	591-575	1	



nipa63e1-a (1410)

Disassemble

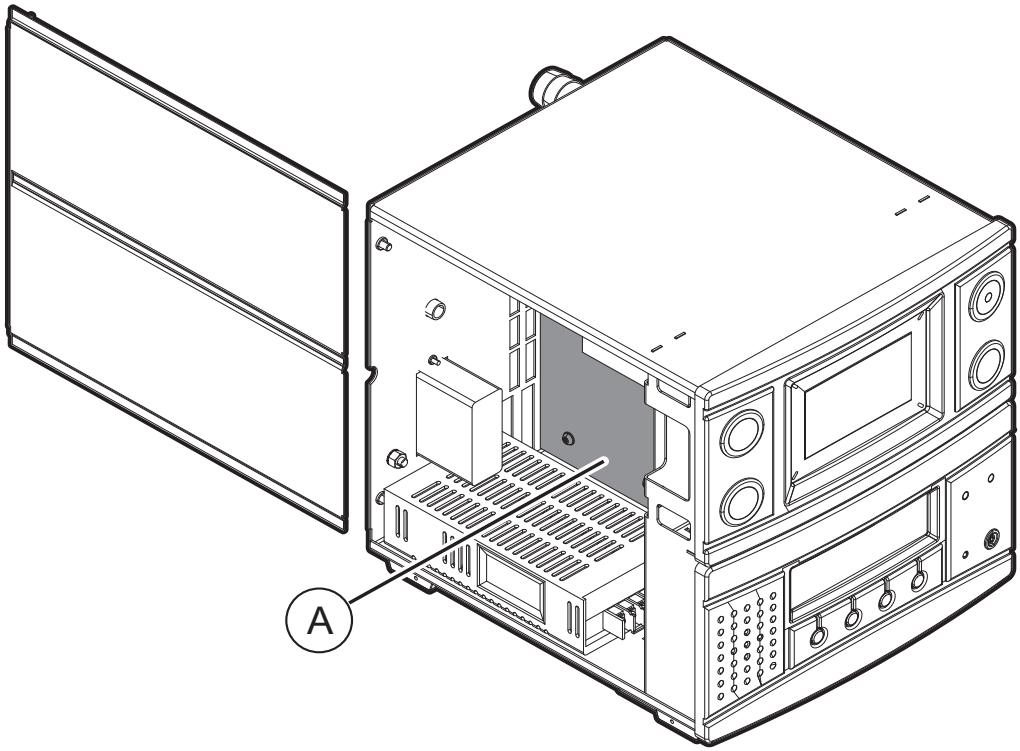
1. Unplug power supply.
2. Open the cover, see “Open the Cover” on page -18.
3. Unplug power supply.
4. Loosen all cables on the power supply (A).
5. Remove the power supply (A) by loosen the two screws in the bottom.

Assemble

1. Install new power supply.
2. Reinstall and tighten the screws.
3. Reinstall all cables.
4. Reinstall the cover.

4.5 Changing Main PCB

Part	Part No.	Qty	Consumables
Electronic board	591-603	1	



Disassemble

1. Unplug power supply.
2. Open the cover, see “Open the Cover” on page -18.
3. Unplug power supply.
4. Loosen all cables on the power supply.
5. Remove the power supply by loosen the two screws in the bottom.
6. Loosen all cables attached to the main PCB (A).
7. Remove the six screws holding the main PCB (A).

Assemble

1. Install new PCB and tighten the screws.
2. Reinstall all cables attached to the main PCB.
3. Reinstall the screws holding the power supply.
4. Reinstall all cables attached to the power supply.
5. Reinstall the cover.

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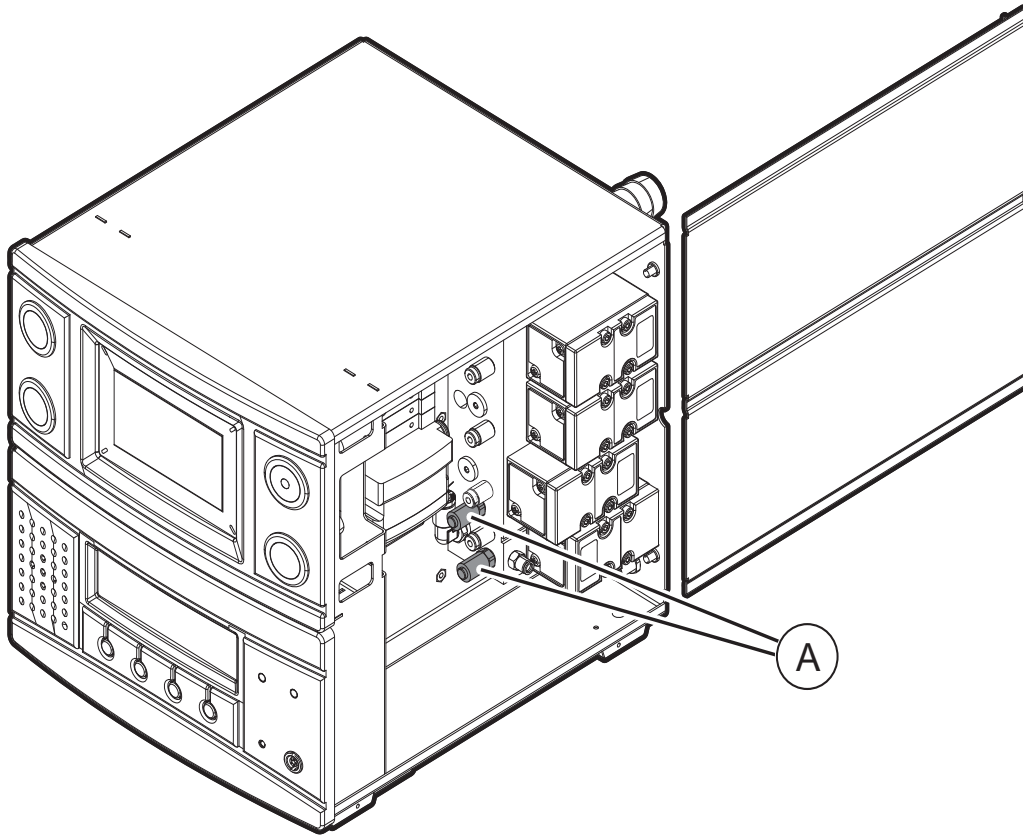
4.6 Changing Pressure or Vacuum Sensor

Part	Part No.	Qty	Consumables
Valve block P510	included in 599-023	1	



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Disassemble

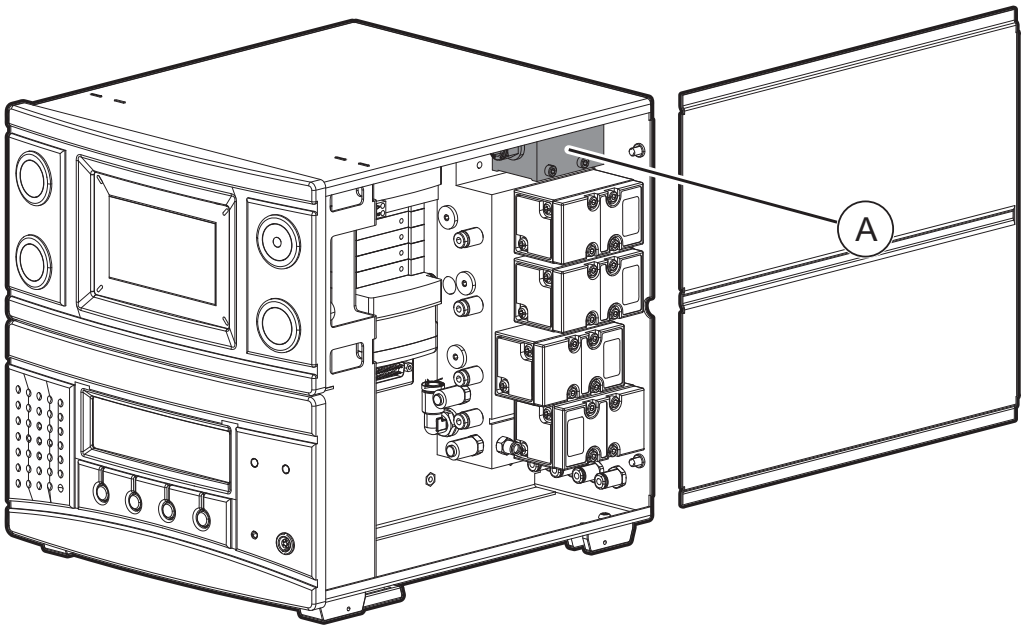
1. Unplug power supply.
2. Open the cover, see “Open the Cover” on page -18.
3. Unplug power supply.
4. Loosen the cable from the contact.
5. Remove the Sensor contact using a wrench.

Assemble

1. Install the new Sensor contact.
2. Reinstall the cable.
3. Reinstall the cover.

4.7 Changing Venturi Pump

Part	Part No.	Qty	Consumables
Valve block P510	included in 599-023	1	



Disassemble

1. Unplug power supply.
2. Open the cover, see “Open the Cover” on page -18.
3. Remove the exhaust hose from the barbed hose fitting.
4. Unscrew and remove the barbed hose fitting and the plastic washer.
5. Use a 4 mm Allen key to remove the four screws holding the Venturi pump (A).
6. Remove the o-ring under the Venturi pump (A). Remove the hose from Venturi inlet. Push hose into connector and press orange ring down to release hose, then pull hose out.
7. Remove the hose fitting from the Venturi pump (A).

Assemble

1. Install new Venturi or use compressed air jet and a cotton bud, pipe cleaner or small brush to clean the nozzles inside the Venturi.
2. Replace hose fitting on Venturi inlet.
3. Reconnect inlet hose.
4. Clean o-ring and install in groove on valve manifold.
5. Reinstall and tighten the four screws.
6. Put plastic washer inside Venturi outlet and reinstall barbed fitting. Tighten with spanner.
7. Reconnect the exhaust hose.

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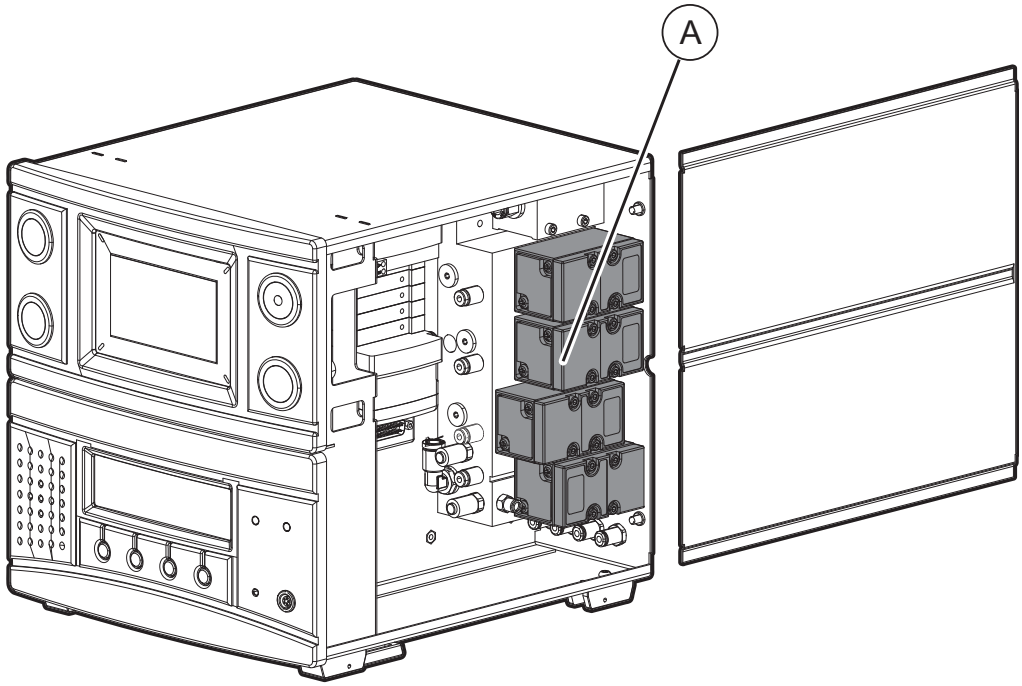
8 Run through the hardware test again to test that the Venturi delivers adequate max vacuum.

9 Reinstall the cover.

4.8 Changing Gas Valves

Part	Part No.	Qty	Consumables
Valve block P510	included in 599-023	1	



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Disassemble

1 Unplug power supply.

2 Open the cover, see “Open the Cover” on page -18.

3 Use a 3 mm Allen key to remove the four screws holding the valve (A) to be changed.

4 Lift out the old valve (A).

Assemble

1 Install new valve.

2 Tighten the screws 2-3 mm (0.08-0.12 in.) at a time moving the key from screw to screw so that the valve doesn’t tilt much.

3 Tighten the screws and replace the cover.

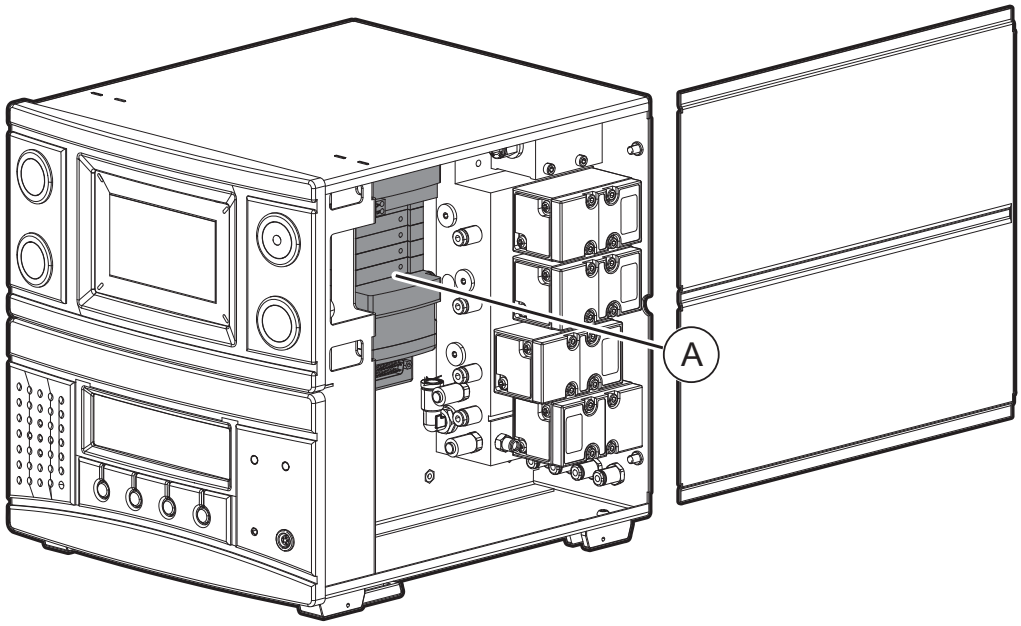
4 Run through the hardware test again to test that the changed/removed valve(s) perform as required.

5 Use hand probe to check that there is no external leakage (this part of Hardware Test is routine).

6 Reinstall the cover.

4.9 Changing Pilot Valves

Part	Part No.	Qty	Consumables
Valve ramp	591-565	1	



Disassemble

1 Unplug power supply.

2 Open the cover, see “Open the Cover” on page -18.

3 Use small screw driver to loosen the screw holding the valve (A). You must back the screw all the way out until you feel it “jumping” in the thread entrance.

4 Push down on the LEDs while pressing the screw down until you feel the locking mechanism “snap”.

5 Lift the old valve (A) out from the coil side. If the valve does not come off, repeat steps 3 and 4 making sure the screw is completely backed out.

Assemble

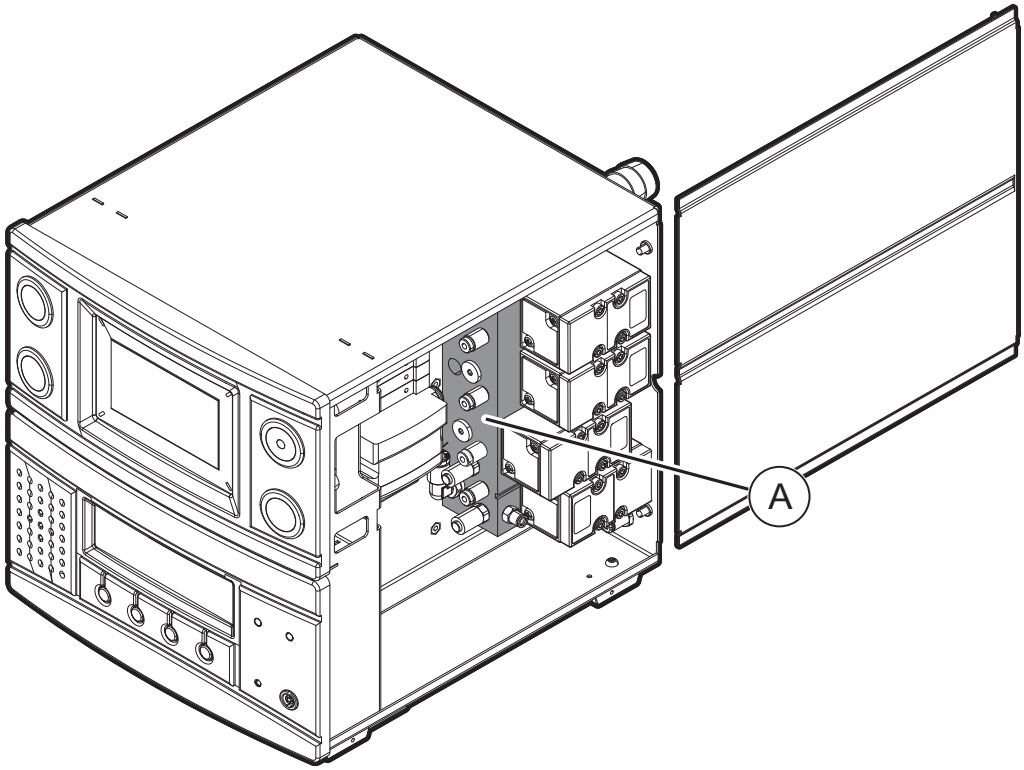
1 Push the screw in while inserting the new valve. Insert the end facing the screw first and then push the coil side down.

2 Tighten the screw.

3 Reinstall the cover.

4.10 Changing Valve Block

Part	Part No.	Qty	Consumables
Valve block P510	included in 599-023	1	



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Disassemble

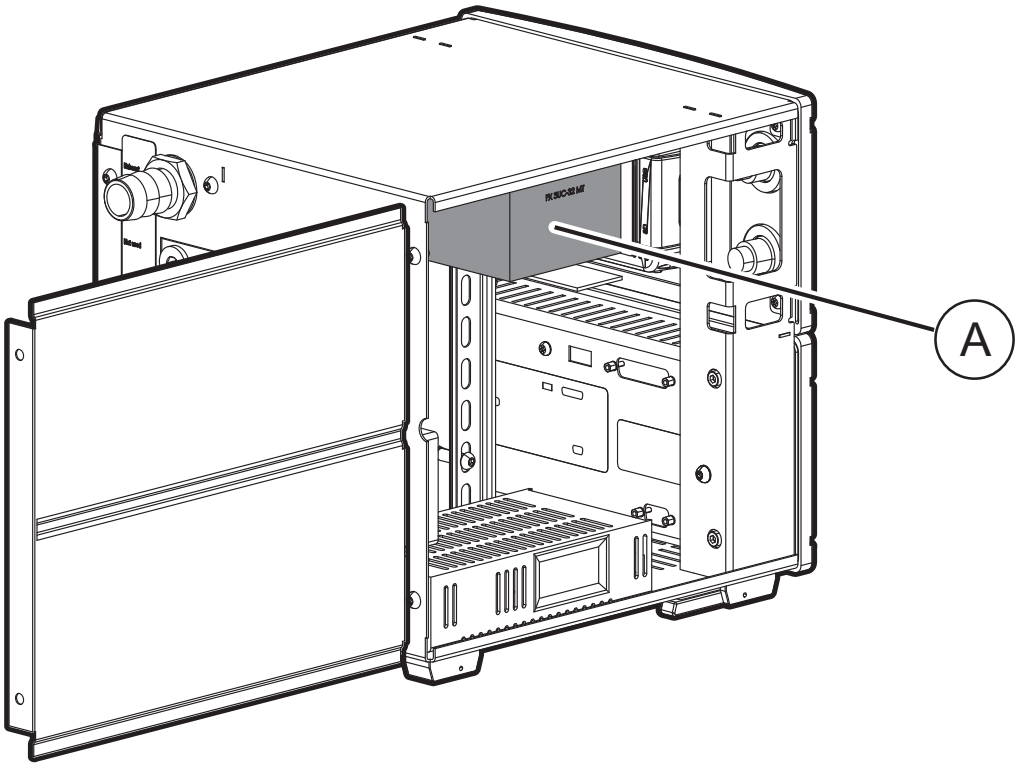
1. Unplug power supply.
2. Open the cover, see “Open the Cover” on page -18.
3. Use a Torx screwdriver to loosen the three screws on the back.
4. Loosen the Pilot Valve cable, Vacuum Sensor cable and the Pressure Sensor cable from the Valve Block (A).
5. Lift the Valve Block (A) out and clean it from contamination.

Assemble

1. Install the new Valve Block.
2. Reinstall all cables.
3. Reinstall and tighten the screws.
4. Reinstall the cover.

4.11 Changing PLC and AD Module

Part	Part No.	Qty	Consumables
PLC FX3UC	591-718	1	
A/D CONVERTER BOARD	591-572	1	



Disassemble

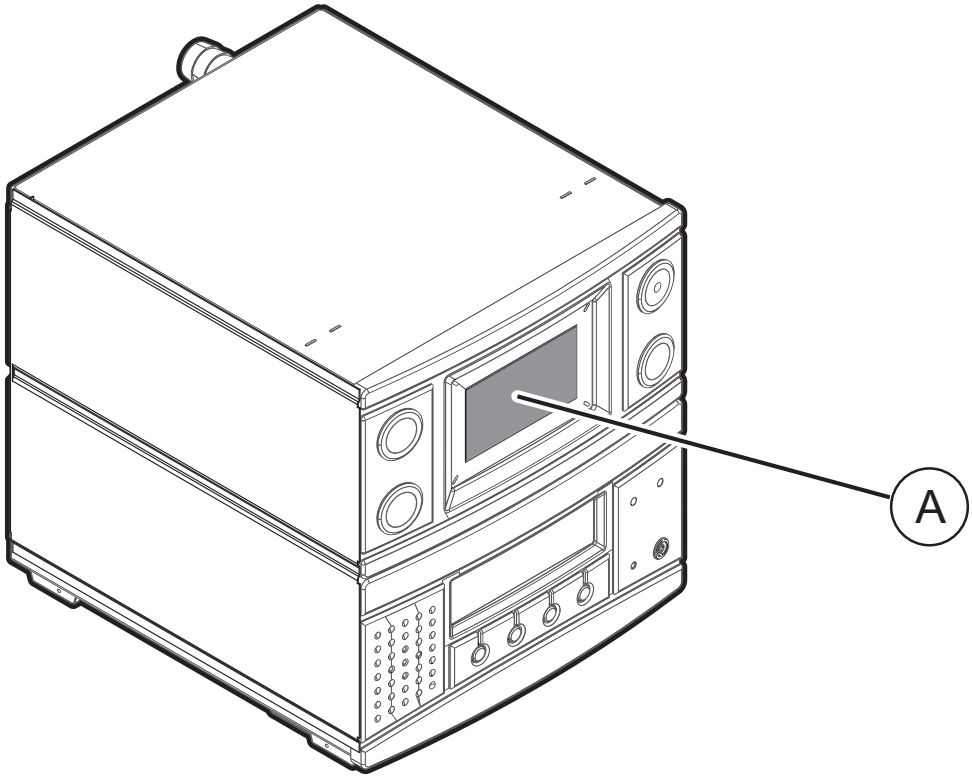
1. Unplug power supply.
2. Open the cover, see “Open the Cover” on page -18.
3. Loosen all cables attached to the PLC and AD Module (A).
4. Unlock the hooks on the back.
5. Remove the PLC and AD Module (A).

Assemble

1. Install new PLC and AD Module.
2. Lock the hooks on the back.
3. Reinstall all cables.
4. Reinstall the cover.

4.12 Changing Display

Part	Part No.	Qty	Consumables
HMI-Panel	599-027	1	



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Disassemble

1. Unplug power supply.
2. Open the cover, see “Open the Cover” on page -18.
3. Remove both side covers.
4. Use a Torx screwdriver to remove the fours screws holding the display panel.
5. Carefully lift out the display panel.
6. Use a Torx to remove the four screws holding the display (A).
7. Remove the old display (A).

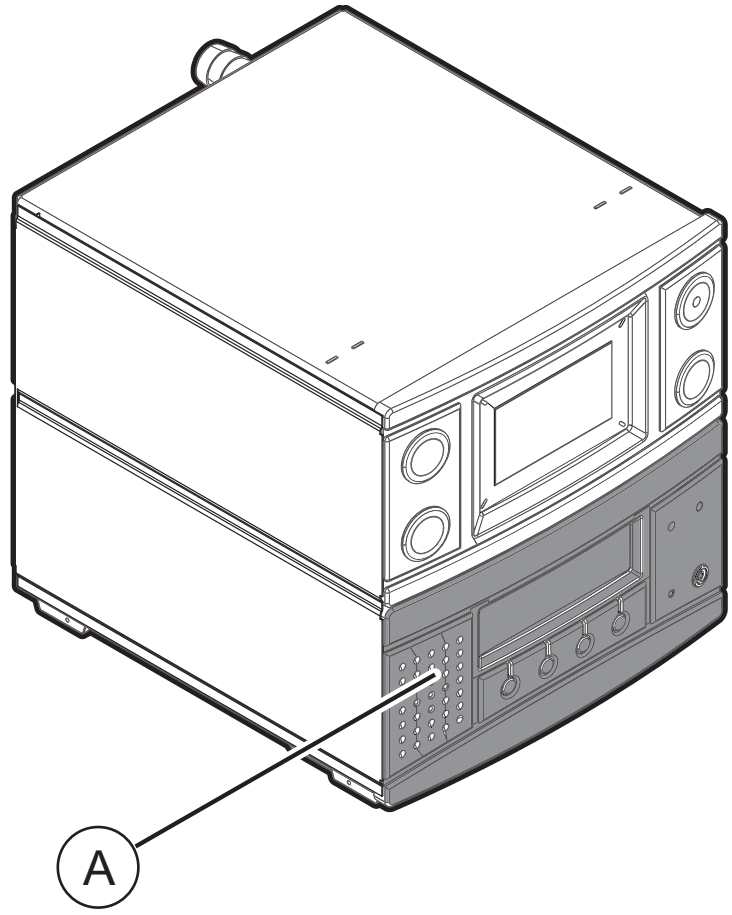
Assemble

1. Install new display.
2. Reinstall and tighten the screws holding the display.
3. Reinstall and tighten the screws holding the panel.
4. Reinstall the cover.

Notice For information about how to replace lamps and buttons in the display panel, please contact INFICON.

4.13 Changing ISH2000

Part	Part No.	Qty	Consumables
Sensistor ISH2000P	599-073	1	



Disassemble

1. Unplug power supply.
2. Open the cover, see “Open the Cover” on page -18.
3. Remove both side covers.
4. Use a Torx screwdriver to remove the four screws holding the ISH2000 (A).
5. Carefully lift out the ISH2000 (A).
6. Loosen all cables attached to the ISH2000 (A).
7. Remove old ISH2000 (A).

Assemble

1 Install new ISH2000.

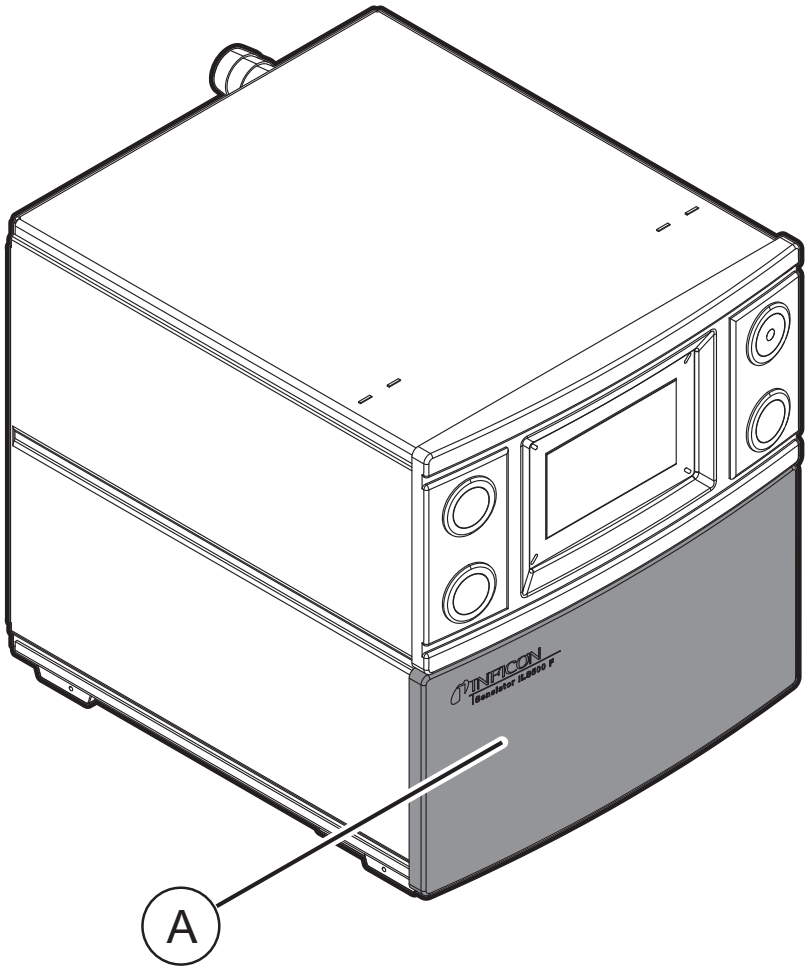
2 Reinstall all cables.

3 Reinstall and tighten the screws.

4 Reinstall the cover.

4.14 Changing Panel Cover (ILS500 F Model)

Part	Part No.	Qty	Consumables
Panel cover ILS500 F	598-069	1	



Disassemble

1 Unplug power supply.

2 Open the cover, see “Open the Cover” on page -18.

3 Remove both side covers.

4 Use a Torx screwdriver to remove the two screws holding the Panel Cover (A).

5 Lift out the Panel Cover (A).

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6 Remove old Panel Cover (A).

Assemble

1 Install new Panel Cover.

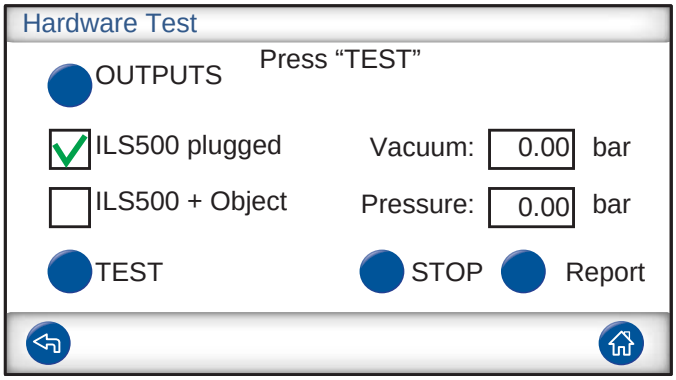
2 Reinstall and tighten the screws.

3 Reinstall the cover.

4.15 Functional Verification

4.15.1 Perform Hardware Test

Notice Before performing the hardware test, carefully check that your tracer gas and compressed air feed pressures are correct. Wrongly set pressure can cause erroneous test results.



- For troubleshooting and testing of the system, use Service menu.
- For remote troubleshooting, use Service Run menu.
- Venturi Pump and all Gas Valves can be tested automatically.

The hardware test is a diagnostic tool helping you in preventive maintenance as well as service and repair. The test takes you through a number of steps testing all units that are subject to wear and should thereby help you to find almost any problem in the ILS500 system.

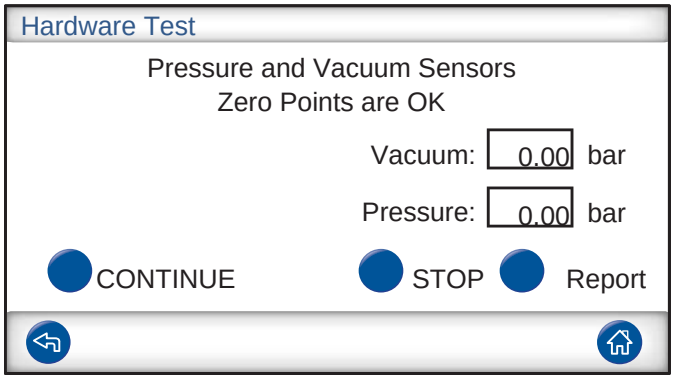
Notice Run through the whole sequence to interpret the results correctly.

You will need the reference table at the end of this section to help you interpret the test results correctly. Keep this manual at hand when performing the test.

You can choose to test according to the limits of your specific application.

1. Setup all parameters for your test object (or load desired recipe) and connect a leak free sample.
2. Set test selection switch to ”ILS500 + Object” for application specific hardware test. You can also test the ILS500 against factory specification. In this case you should plug both test ports using the plugs delivered with the units.
3. Remove ISO to NPT converters if installed. Set test selection switch to ”ILS500 plugged” for factory specified hardware test.
4. The ”Continue” button will be displayed at the end of each test step. Press ”Continue” for next test step.

Pressure and Vacuum Sensors



Zero points of pressure and vacuum sensors are tested.

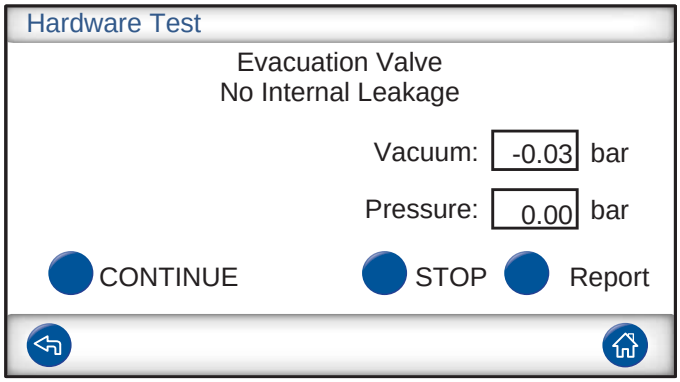
Possible results:

- Zero Points are OK
- Vacuum Zero Point not OK

Offset zero point can result in:

- Incorrect gas filling
- Erroneous vacuum or pressure decay results

Evacuation Valve



Evacuation valve is checked for internal leakage.

Possible results:

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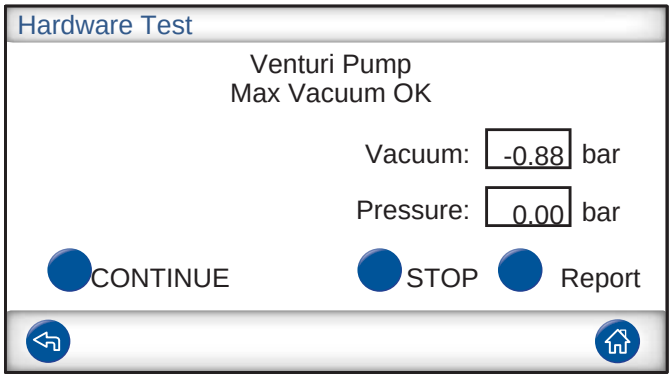
- No Internal Leakage
- Internal Leakage

Internal leakage can result in:

- False vacuum decay rejects
- Increased tracer gas consumption

Venturi Pump



Checking max vacuum of Venturi pump.

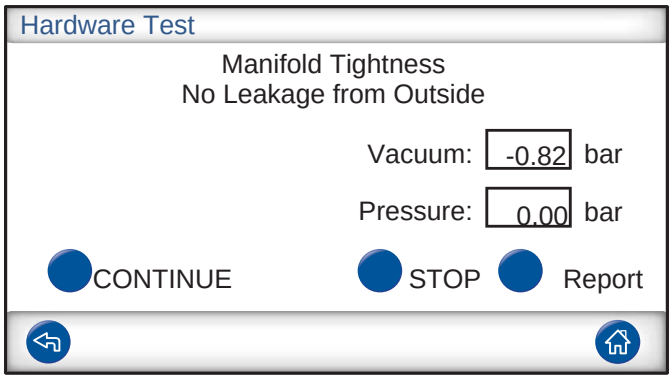
Possible results:

- Max Vacuum OK
- Poor Max Vacuum

Poor max vacuum can result in:

- Failed pre-evacuation
- Slower evacuation

Manifold Tightness (gross)



The overall tightness of the manifold is tested using the vacuum raise method.

Possible results:

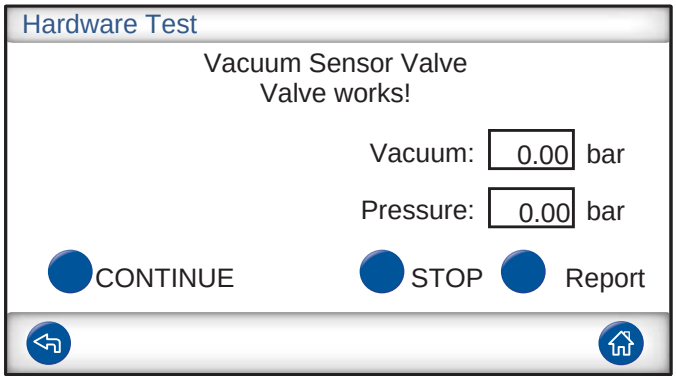
- No Leakage from Outside
- Leakage from Outside

Leaks in the manifold can result in:

- False vacuum decay rejects
- Increased gas consumption

Minor external leakage will be found later during the gas test step.

Vacuum Sensor Valve



This checks that the valve shuts to protect vacuum sensor before filling.

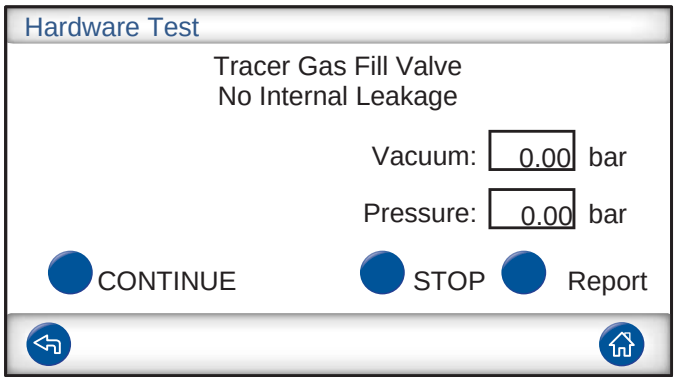
Possible results:

- Valve works
- Faulty!

Malfunction can result in:

- Damage to vacuum sensor
- Failed pre-evacuation

Tracer Gas Fill Valve



The step tests the gas fill valve for internal leakage by registering pressure rise behind the valve.

Possible results:

- No Internal Leakage

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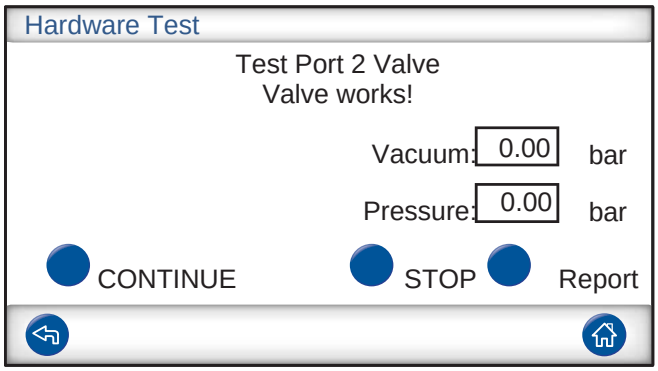
- Internal Leakage

Internal leakage can result in:

- Erroneous pressure decay results
- False vacuum decay rejects increased gas consumption

Test Port 2 Valve



Notice This test will fail if both test ports are connected to a test object. Proceed and then repeat the entire hardware test sequence with both ports plugged to perform this test step.

This step tests Test Port 2 valve for internal leakage by registering pressure rise behind the valve.

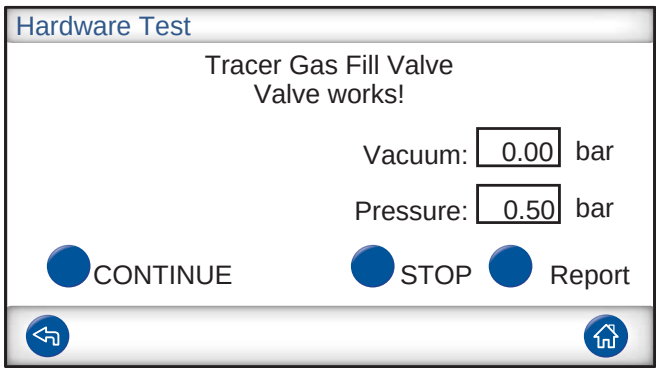
Possible results:

- No Internal Leakage
- Internal Leakage

Internal leakage can result in:

- False blockage test accepts

Tracer Gas Fill Valve



This step tests that tracer gas fill valve opens to fill gas. Test will fail if tracer gas feed pressure is too low. If this is the case, adjust pressure and restart hardware test from beginning.

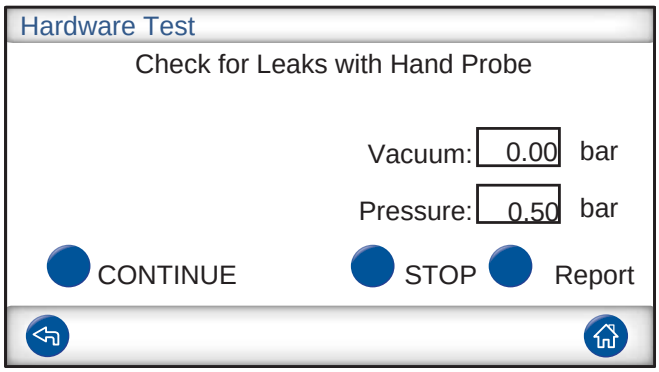
Possible results:

- Valve works
- Faulty!

Malfunction will result in:

- Failed gas filling

External Gas Leaks

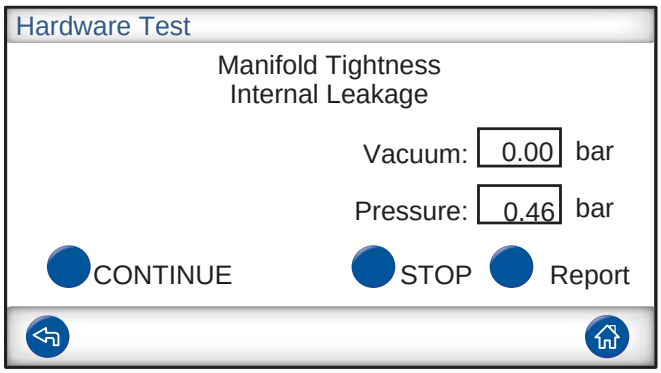


The ILS500 is now prepared for a manual test for external leakage. Use the hand probe to check for leakage

1 Start by checking all connections between the ILS500 and your test object. Follow each test line carefully and check every joint.

2 Proceed to check around the gas valves and manifold inside the ILS500.

Manifold Tightness (gross)



The overall tightness of the manifold is tested using the pressure decay method. This is a complement to the gas test, revealing leakage out, through the exhaust etc.

Possible results:

- No Internal Leakage
- Internal Leakage

Internal leakage can result in:

- False pressure and vacuum decay rejects
- Increased tracer gas consumption

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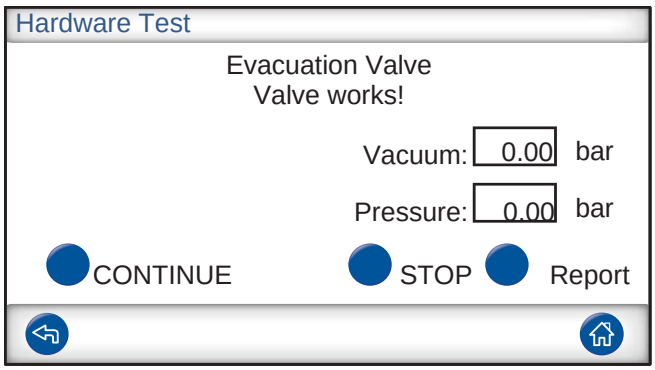
Evacuation Valve



This step tests that evacuation valve opens to release tracer gas to exhaust. Same test as previously but under pressure instead of vacuum.

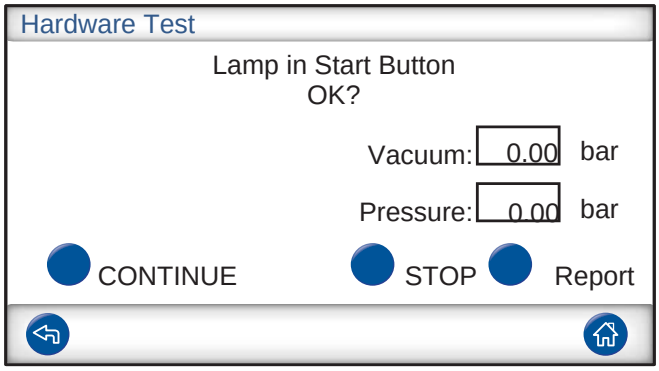
Possible results:

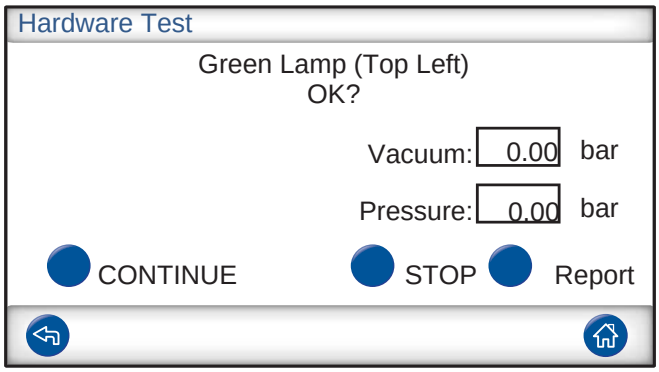
- Valve works
- Faulty!

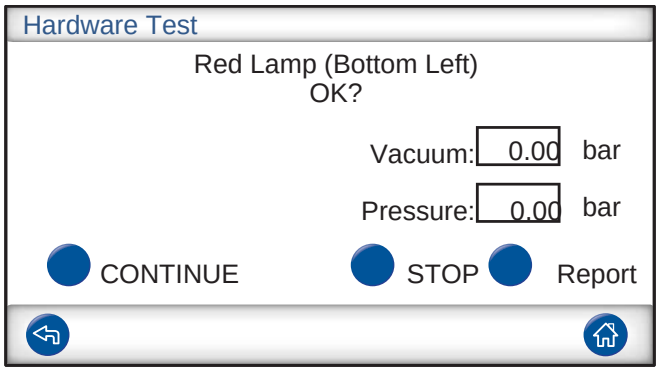
Malfunction will result in:

- Failure to terminate test cycle

Indicator Lamps







This is a “manual” test. The ILS500 lights up one lamp at the time. Simply check that the right lamp comes on.

1 Check function of each lamp by pressing “Continue”.

2 Remember to check lamps on both touch panel and external control panel (if installed).

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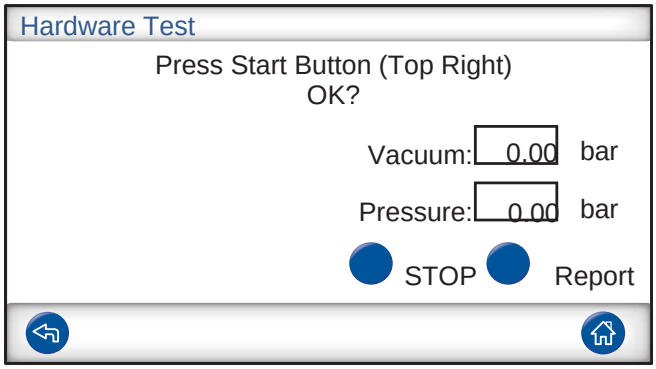
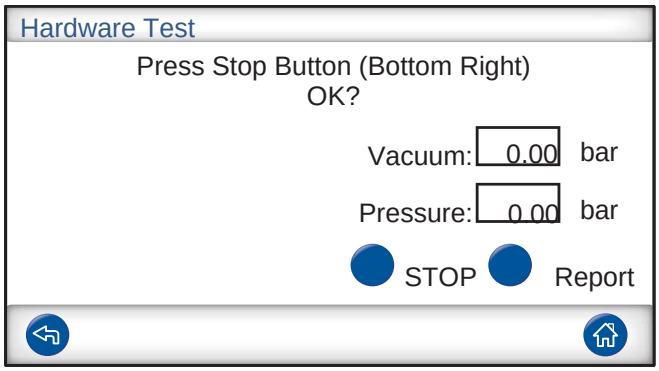
START and STOP buttons





This is a “manual” test. The test continues when the correct button is pressed. The test checks the activated START and STOP buttons only. Use INPUT menu under Service menu to check buttons that are turned off.

4.16 Hardware Error Messages

Error Message	Reason for Error	Corrective Action*
Detector Power Off	No power to the Leak Detector.	Check the power cable to the detector (internal or external).
Detector Error + Check Probe and Cable**	Probe cable disconnected.	Connect cable.
Detector Error + Check Sensor, Voltage Error**	Gas sensor damaged.	Replace probe or sensor.
Detector Error + Error [Driver name]**	Active Probe error.	Consult Active Probe Manual.
Hardware Error Vacuum Sensor Error	No power to vacuum sensor.	Check cable to sensor.
	Sensor not connected to AD.	Check connection to AD.
	Damaged vacuum sensor.	Send in for repair.
Hardware Error Pressure Sensor Error	No power to pressure sensor.	Check cable to sensor.
	Sensor not connected to AD.	Check connection to AD.
	Damaged pressure sensor.	Replace sensor.
Analog Inputs Power Off	No power to AD module.	Check power cable on left side of AD module.
Emergency Stop Activated	Emergency Stop not Reset.	Pull out emergency Stop Button to reset.
ISH2000 Comm. Error	ISH2000 printer mode turned off manually.	Restart system.
	ISH2000 serial cable disconnected.	Connect cable (internal or external).

* Contact your supplier if the suggested action does not clear the error.

** Error message on ISH2000 display.

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5 Software Update

5.1 Update the Software

1. Turn the ILS500 on.
2. When the hourglass symbol disappears, press a finger on the screen and hold until the screen turns gray and following message appears:
   “Tap anywhere on screen or touch calibrate will start in 10 seconds.”
3. Lift the finger and press once again to enter the service menu.
4. Click “Erase Project”, then click Yes to delete the project.
5. Turn the ILS500 off.
6. Insert the USB memory with the new Software.
7. Turn the ILS500 on.
8. Wait for the “Update project” window. Click Yes to copy project from USB memory. The new updates will now be running, this may take a while. The ILS500 will automatically restart once the new software is loaded into the instrument.
9. Wait for the “Project transfer” window. Click Yes to download PLC program.
10. Choose the program you want to run and click Yes.
11. Update is completed and the ILS500 will start as usual.

Notice If the update fails, repeat this procedure.

5.2 Reset to Factory Configuration Parameters

Notice After updating the software in ILS500 INFICON recommends to do a system reset.

1. Click **Menu >> Advanced Settings >> Service Menu >> System Reset**.
2. Click Yes to reset the ILS500 to factory default.

5.3 Supported USB Memories

The ILS500 supports USB 2.0 full speed 12 Mbps and is backwards compatible with USB 1.1. USB memories must be USB mass storage device class compatible and have a maximum power consumption of 200 mA when no external field buss module is mounted.

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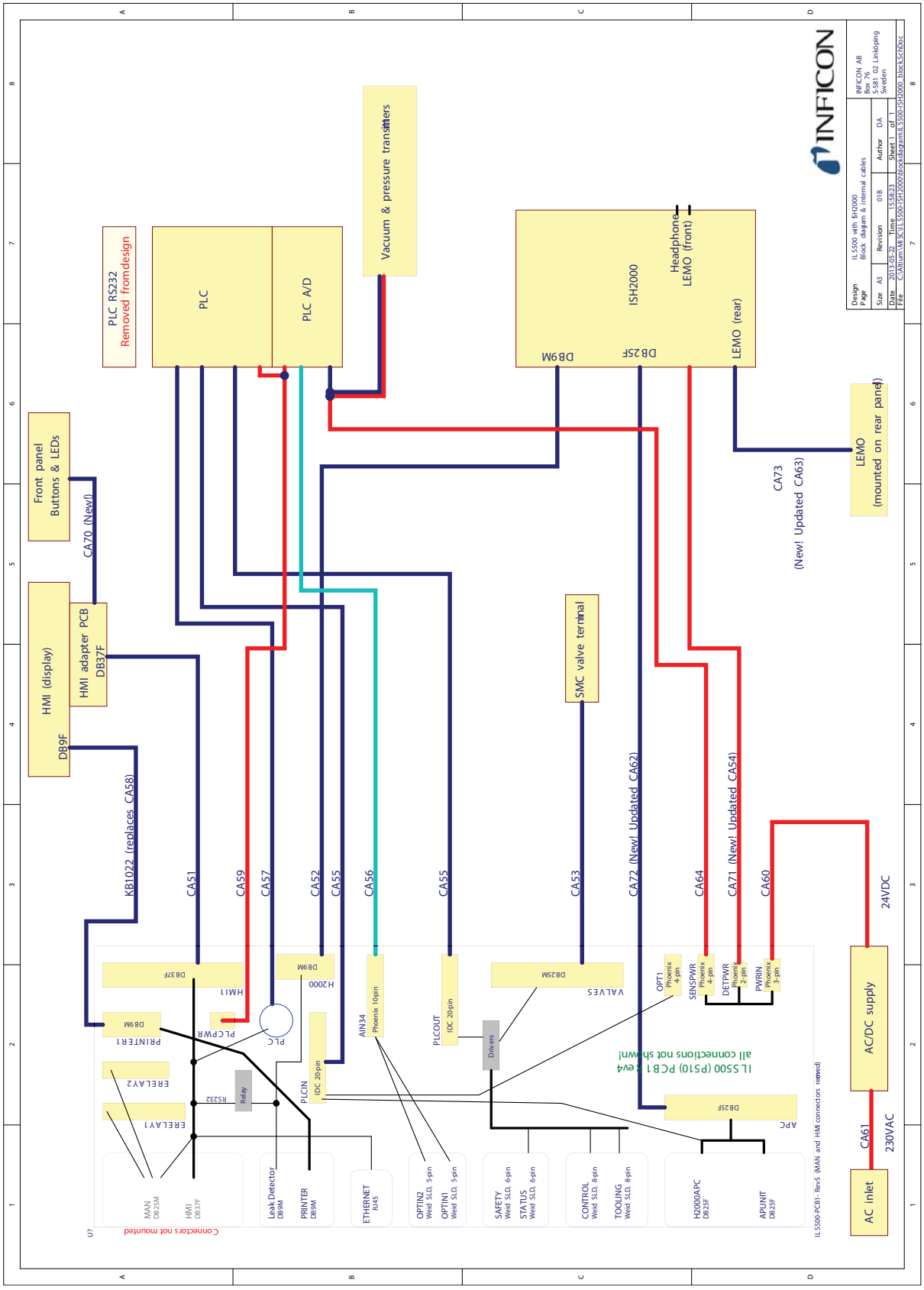
6 Drawings



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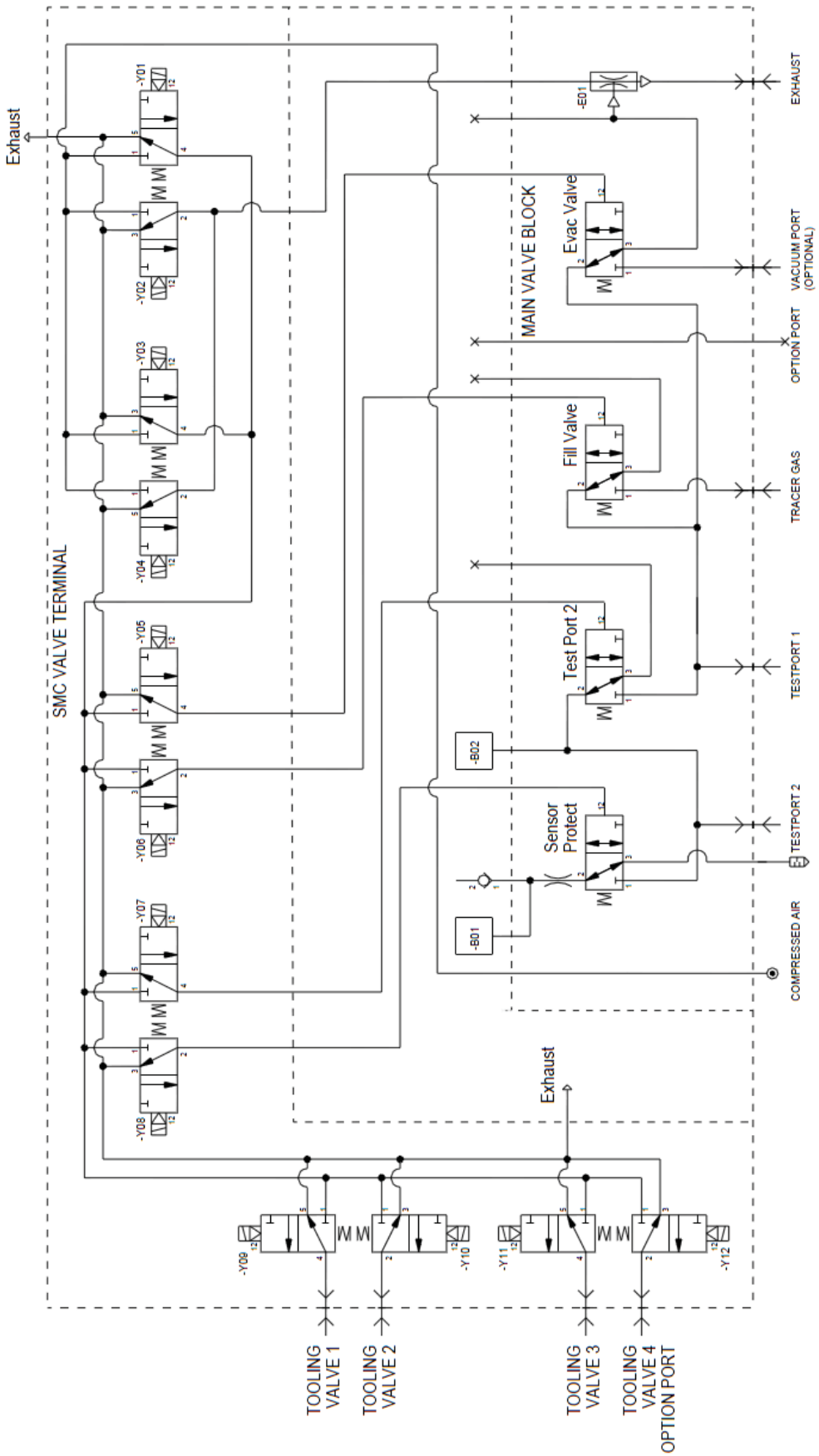

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